## **ABSTRACT**

The invention relates to a micro-system intended to receive beads and to obtain a precise positioning of the beads at preset locations in the micro-system. This micro-system comprises a tank that has a cavity, the cavity being fitted with blocking elements allowing the beads to be ordered and stacked in the interstices between the blocking elements, the interstices constituting the preset locations. It also comprises a cap anchored hermetically to the tank and input means and output means allowing a fluid to flow in the cavity. The invention also relates to the implementation and use of the bead-filled micro-system.